

**CLAIMS:**

1       1.     A system, comprising:  
2             a client configured to generate a first data stream comprising page description  
3 information, wherein said client comprises:  
4                 a first memory unit operable for installing font resources; and  
5                 a first processor coupled to said first memory unit;  
6             a spool coupled to said client, wherein said spool is configured to store said  
7 first data stream;  
8             a resource library configured to store font resources;  
9             a print server coupled to said spool and said resource library, wherein said  
10 print server comprises:  
11                 a second memory unit operable for storing a printer driver configured  
12 to generate a second data stream; and  
13                 a second processor coupled to said first memory unit; and  
14             a printer coupled to said print server, wherein said printer is configured to  
15 receive said second data stream generated from said print server; and  
16             wherein said resource library comprises:  
17                 a table configured to map native names of font resources to file names,  
18 identifications and attributes associated with said font resources.

1       2.     The system as recited in claim 1, wherein said first processor, responsive to  
2 said first memory, comprises:  
3             circuitry operable for receiving a character, wherein said character is a  
4 modified character in a first base font resource or is a character to be added to or  
5 deleted from said first base font resource;  
6             circuitry operable for creating a font resource that comprises said character in  
7 a file;  
8             circuitry operable for generating an identification associated with said created  
9 font resource;

10           circuitry operable for creating an entry in said table establishing said created  
11 font resource as a second base font resource; and

12           circuitry operable for storing a native name of said created font resource and  
13 its associated file name and said identification in said created entry.

1       3.     The system as recited in claim 2, wherein said first processor, responsive to  
2 said first memory, comprises:

3           circuitry operable for creating a link list in an entry in said table associated  
4 with said first base font resource to link said created font resource to said first base  
5 font resource;

6           circuitry operable for indicating in said entry in said table associated with said  
7 first base font resource to not reverse linking of said first base font resource to said  
8 created font resource if said character is a character to be added; and

9           circuitry operable for indicating in said entry in said table associated with said  
10 first base font resource to reverse linking of said first base font resource to said  
11 created font resource if said character is a character to be modified or deleted.

12       4.     The system as recited in claim 1, wherein said first processor, responsive to  
13 said first memory, comprises:

14           circuitry operable for installing a collection font resource, wherein said  
15 collection font resource comprises a stand alone font resource;

16           circuitry operable for generating an identification associated with said  
17 collection font resource;

18           circuitry operable for creating an entry in said table for said stand alone font  
19 resource; and

20           circuitry operable for storing in said created entry a native name of said stand  
21 alone font resource along with said identification and a file name of said collection  
22 font resource.

1       5.       The system as recited in claim 1, wherein said second processor, responsive to  
2       said second memory, comprises:

3               circuitry operable for receiving a native name identifying a font resource in  
4       said first data stream;

5               circuitry operable for searching said table for said received native name and  
6       its associated file name; and

7               circuitry operable for downloading a file referenced by said file name to said  
8       printer if said printer has not stored said file referenced by said file name.

1       6.       The system as recited in claim 1, wherein said first processor, responsive to  
2       said first memory, comprises:

3               circuitry operable for updating a font resource identified with a first  
4       identification, wherein said table comprises an entry storing a native name identifying  
5       said font resource and its associated said first identification;

6               circuitry operable for generating a second identification associated with said  
7       updated font resource; and

8               circuitry operable for editing said table by replacing said first identification  
9       with said second identification.

1       7.       The system as recited in claim 1, wherein said second processor, responsive to  
2       said second memory, comprises:

3               circuitry operable for receiving a native name identifying a font resource in  
4       said first data stream;

5               circuitry operable for searching said table for said received native name and  
6       its associated identification;

7               circuitry operable for downloading a file referenced by said identification to  
8       said printer if said printer has not stored said file referenced by said identification.

1       8.     The system as recited in claim 1, wherein said second processor, responsive to  
2       said second memory, comprises:

3             circuitry operable for receiving a character string and a native name  
4       identifying a font resource in said first data stream;

5             circuitry operable for searching said table for said received native name and  
6       its associated attributes, wherein said associated attributes indicate if said font  
7       resource is a private or a public resource;

8             circuitry operable for downloading and transmitting a file referenced by said  
9       file name to said printer;

10            circuitry operable for allowing said printer to capture said file if said resource  
11       is said public resource; and

12            circuitry operable for not allowing said printer to capture said file if said  
13       resource is said private resource.

1       9.     A method for managing font resources using system independent references  
2     comprising the steps of:

3             receiving a character, wherein said character is a modified character in a first  
4     base font resource or is a character to be added to or deleted from said first base font  
5     resource;

6             creating a font resource that comprises said character in a file;

7             generating an identification associated with said created font resource;

8             creating an entry in a table establishing said created font resource as a second  
9     base font resource; and

10            storing a native name of said created font resource and its associated file name  
11     and said identification in said created entry.

1       10.    The method as recited in claim 9 further comprising the steps of:

2             creating a link list in an entry in said table associated with said first base font  
3     resource to link said created font resource to said first base font resource;

4             indicating in said entry in said table associated with said first base font  
5     resource to not reverse linking of said first base font resource to said created font  
6     resource if said character is a character to be added; and

7             indicating in said entry in said table associated with said first base font  
8     resource to reverse linking of said first base font resource to said created font resource  
9     if said character is a character to be modified or deleted.

- 1       11.    A method for managing font resources comprising the steps of:
  - 2            updating a font resource identified with a first identification, wherein a table
  - 3            comprises an entry storing a native name identifying said font resource and its
  - 4            associated said first identification;
  - 5            generating a second identification associated with said updated font resource;
  - 6            and
  - 7            editing said table by replacing said first identification with said second
  - 8            identification.

1       12.    A method for managing font resources using system independent references  
2       comprising the steps of:

3            receiving a character string and a native name identifying a font resource in a  
4       data stream;

5            searching a table for said received native name and its associated attributes,  
6       wherein said associated attributes indicate if said font resource is a private or a public  
7       resource; and

8            downloading and transmitting a file referenced by said native name to a  
9       printer, wherein said printer is allowed to capture said file if said font resource is said  
10      public resource, wherein said printer is not allowed to capture said file if said font  
11      resource is said private resource.

1       13.    A computer program product embodied in a machine readable medium for  
2       managing font resources using system independent references comprising the  
3       programming steps of:

4            receiving a character, wherein said character is a modified character in a first  
5       base font resource or is a character to be added to or deleted from said first base font  
6       resource;

7            creating a font resource that comprises said character in a file;

8            generating an identification associated with said created font resource;

9            creating an entry in a table establishing said created font resource as a second  
10       base font resource; and

11           storing a native name of said created font resource and its associated file name  
12       and said identification in said created entry.

1       14.    The computer program product as recited in claim 13 further comprising the  
2       programming steps of:

3            creating a link list in an entry in said table associated with said first base font  
4       resource to link said created font resource to said first base font resource;

5            indicating in said entry in said table associated with said first base font  
6       resource to not reverse linking of said first base font resource to said created font  
7       resource if said character is a character to be added; and

8            indicating in said entry in said table associated with said first base font  
9       resource to reverse linking of said first base font resource to said created font resource  
10       if said character is a character to be modified or deleted.